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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA-2001-^{9636 - 1} ✓ ; Notice No. 01-05]

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5/8/01

RIN 2120-AH26

Airspeed Indicating System Requirements for Transport Category Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Federal Aviation Administration proposes to amend the airworthiness standards for transport category airplanes concerning the airspeed indicating system. This proposal would add airspeed indication requirements for speeds greater than and less than the speed range for which airspeed indication accuracy requirements currently apply, would add a requirement that airspeed indications not cause the pilot undue difficulty between the initiation of rotation and the achievement of a steady climbing condition during takeoff, and would also add a requirement to limit the effects of airspeed lag. Adopting this proposal would eliminate a regulatory difference between the airworthiness standards of the U.S. and the Joint Aviation Requirements of Europe, without affecting current industry design practices.

DATES: Send your comments on or before [Insert date 60 days after date of publication in the Federal Register.]

ADDRESSES:

Address your comments to Dockets Management System, U.S. Department of Transportation Dockets, Room Plaza 401, 400 Seventh Street SW., Washington, DC 20590-0001. You must identify the docket number, FAA-2001-⁹⁶³⁶ ✓, at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that the FAA has received your comments, please include a self-

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We will consider all comments received on or before the closing date before taking action on this proposed rulemaking. Comments filed late will be considered as far as possible without incurring expense or delay. The proposals in this document may be changed in light of the comments received.

How Can I Obtain a Copy of this NPRM?

You may download an electronic copy of this document using a modem and suitable communications software from the FAA regulations section of the Fedworld electronic bulletin board service (telephone: 703-321-3339); the Government Printing Office (GPO)'s electronic bulletin board service (telephone: 202-512-1661); or, if applicable, the FAA's Aviation Rulemaking Advisory Committee bulletin board service (telephone: 800-322-2722 or 202-267-5948).

Internet users may access recently published rulemaking documents at the FAA's web page at <http://www.faa.gov/avr/arm/nprm/nprm.htm> or the GPO's web page at <http://www.access.gpo.gov/nara>.

You may obtain a copy of this document by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591; or by calling 202-267-9680. Communications must identify the docket number of this NPRM.

Any person interested in being placed on the mailing list for future rulemaking documents should request from the above office a copy of Advisory Circular 11-2A, "Notice of Proposed Rulemaking Distribution System," which describes the application procedure.

BACKGROUND

What Are the Relevant Airworthiness Standards in the United States?

In the United States, the airworthiness standards for type certification of transport category airplanes are contained in Title 14, Code of Federal Regulations (CFR), part 25. Manufacturers of transport category airplanes must show that each airplane they produce

of a different type design complies with the appropriate part 25 standards. These standards apply to:

- airplanes manufactured within the U.S. for use by U.S.-registered operators, and
- airplanes manufactured in other countries and imported to the U.S. under a bilateral airworthiness agreement.

What Are the Relevant Airworthiness Standards in Europe?

In Europe, the airworthiness standards for type certification of transport category airplanes are contained in Joint Aviation Requirements (JAR)-25, which are based on part 25. These were developed by the Joint Aviation Authorities (JAA) of Europe to provide a common set of airworthiness standards within the European aviation community.

Twenty-three European countries accept airplanes type certificated to the JAR-25 standards, including airplanes manufactured in the U.S. that are type certificated to JAR-25 standards for export to Europe.

What is “Harmonization” and How Did it Start?

Although part 25 and JAR-25 are very similar, they are not identical in every respect. When airplanes are type certificated to both sets of standards, the differences between part 25 and JAR-25 can result in substantial additional costs to manufacturers and operators. These additional costs, however, frequently do not bring about an increase in safety. In many cases, part 25 and JAR-25 may contain different requirements to accomplish the same safety intent. Consequently, manufacturers are usually burdened with meeting the requirements of both sets of standards, although the level of safety is not increased correspondingly.

Recognizing that a common set of standards would not only benefit the aviation industry economically, but also maintain the necessary high level of safety, the FAA and the JAA began an effort in 1988 to “harmonize” their respective aviation standards. The goal of the harmonization effort is to ensure that:

- where possible, standards do not require domestic and foreign parties to manufacture or operate to different standards for each country involved; and
- the standards adopted are mutually acceptable to the FAA and the foreign aviation authorities.

The FAA and JAA have identified a number of significant regulatory differences (SRD) between the wording of part 25 and JAR-25. Both the FAA and the JAA consider “harmonization” of the two sets of standards a high priority.

What is the ARAC and What Role Does it Play in Harmonization?

After initiating the first steps towards harmonization, the FAA and JAA soon realized that traditional methods of rulemaking and accommodating different administrative procedures was neither sufficient nor adequate to make appreciable progress towards fulfilling the goal of harmonization. The FAA then identified the Aviation Rulemaking Advisory Committee (ARAC) as an ideal vehicle for assisting in resolving harmonization issues, and, in 1992, the FAA tasked ARAC to undertake the entire harmonization effort.

The FAA had formally established ARAC in 1991 (56 FR 2190, January 22, 1991) to provide advice and recommendations concerning the full range of the FAA’s safety-related rulemaking activity. The FAA sought this advice to develop better rules in less overall time and using fewer FAA resources than previously needed. The committee provides the FAA firsthand information and insight from interested parties regarding potential new rules or revisions of existing rules.

There are 64 member organizations on the committee, representing a wide range of interests within the aviation community. Meetings of the committee are open to the public, except as authorized by section 10(d) of the Federal Advisory Committee Act.

The ARAC establishes working groups to develop recommendations for resolving specific airworthiness issues. Tasks assigned to working groups are published in the Federal Register. Although working group meetings are not generally open to the public,

the FAA solicits participation in working groups from interested members of the public who possess knowledge or experience in the task areas. Working groups report directly to the ARAC, and the ARAC must accept a working group proposal before ARAC presents the proposal to the FAA as an advisory committee recommendation.

The activities of the ARAC will not, however, circumvent the public rulemaking procedures; nor is the FAA limited to the rule language “recommended” by ARAC. If the FAA accepts an ARAC recommendation, the agency proceeds with the normal public rulemaking procedures. Any ARAC participation in a rulemaking package is fully disclosed in the public docket.

What is the Status of the Harmonization Effort Today?

Despite the work that ARAC has undertaken to address harmonization, there remain a large number of regulatory differences between part 25 and JAR-25. The current harmonization process is extremely costly and time-consuming for industry, the FAA, and the JAA. Industry has expressed a strong desire to conclude the harmonization program as quickly as possible to alleviate the drain on their resources and to finally establish one acceptable set of standards.

Recently, representatives of the aviation industry [including Aerospace Industries Association of America, Inc. (AIA), General Aviation Manufacturers Association (GAMA), and European Association of Aerospace Industries (AECMA)] proposed an accelerated process to reach harmonization.

What is the “Fast Track Harmonization Program”?

In light of a general agreement among the affected industries and authorities to expedite the harmonization program, the FAA and JAA, in March 1999, agreed upon a method to achieve these goals. This method, which the FAA has titled “The Fast Track Harmonization Program,” is aimed at expediting the rulemaking process for harmonizing not only the 42 standards that are currently tasked to ARAC for harmonization, but approximately 80 additional standards for part 25 airplanes.

The FAA initiated the Fast Track program on November 26, 1999 (64 FR 66522). This program involves grouping all of the standards needing harmonization into three categories:

Category 1: Envelope – For these standards, parallel part 25 and JAR-25 standards would be compared, and harmonization would be reached by accepting the more stringent of the two standards. Thus, the more stringent requirement of one standard would be “enveloped” into the other standard. In some cases, it may be necessary to incorporate parts of both the part 25 and JAR standard to achieve the final, more stringent standard. (This may necessitate that each authority revises its current standard to incorporate more stringent provisions of the other.)

Category 2: Completed or near complete – For these standards, ARAC has reached, or has nearly reached, technical agreement or consensus on the new wording of the proposed harmonized standards.

Category 3: Harmonize – For these standards, ARAC is not near technical agreement on harmonization, and the parallel part 25 and JAR-25 standards cannot be “enveloped” (as described under Category 1) for reasons of safety or unacceptability. A standard developed under Category 3 would be mutually acceptable to the FAA and JAA, with a consistent means of compliance.

Further details on the Fast Track Program can be found in the tasking statement (64 FR 66522, November 26, 1999) and the first NPRM published under this program, **Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes** (65 FR 36978, June 12, 2000).

Under this program, the FAA provides ARAC with an opportunity to review, discuss, and comment on the FAA’s draft NPRM. In the case of this rulemaking, ARAC suggested a few editorial changes, which have been incorporated into this NPRM.

DISCUSSION OF THE PROPOSAL

How Does This Proposed Regulation Relate to “Fast Track”?

This proposed regulation results from the recommendations of ARAC submitted under the FAA’s Fast Track Harmonization Program. In this notice, the FAA proposes to amend the airspeed indicating system requirements of § 25.1323.

What is the Underlying Safety Issue Addressed by the Current Standards?

The underlying safety issue is to prevent hazardously misleading airspeed information from being presented to the flightcrew. To this end, § 25.1323 specifies the accuracy and calibration requirements and the speed ranges over which each airspeed system must be calibrated. In addition, each airspeed system must be designed and installed so as to minimize the possibility of malfunction by the entry of foreign material, by icing, or due to a collision with a bird.

What are the Current 14 CFR and JAR Standards?

The current text of 14 CFR 25.1323(c) is:

(c) The airspeed error of the installation, excluding the airspeed indicator instrument calibration error, may not exceed three percent or five knots, whichever is greater, throughout the speed range, from--

- (1) V_{MO} to $1.3 V_{S1}$ with flaps retracted; and
- (2) $1.3 V_{S0}$ to V_{FE} with flaps in the landing position.

The text of JAR-25.1323(c), Chg. 14, Orange Paper 96/1, is:

(c)(1) The airspeed error of the installation, excluding the airspeed indicator instrument calibration error, may not exceed three percent or five knots, whichever is greater, throughout the speed range, from--

- (i) V_{MO} to $1.3 V_{S1}$ with wing-flaps retracted; and
- (ii) $1.3 V_{S0}$ to V_{FE} with wing-flaps in the landing position.

(2) From $1.3 V_S$ to stall warning speed the IAS must change perceptibly with CAS and in the same sense, and at speeds below stall warning speed the IAS must not change in an incorrect sense. (See ACJ 25.1323 (c)(2).)

(3) From V_{MO} to $V_{MO} + 2/3 (V_{DF} - V_{MC})$ the IAS must change perceptibly with CAS and in the same sense, and at higher speeds up to V_{DF} the IAS must not change in an incorrect sense. (See ACJ 25.1323 (c)(3).)

(4) There must be no indication of airspeed which would cause undue difficulty to the pilot during the take-off between the initiation of rotation and the achievement of a steady climbing condition.

Note: This proposal harmonizes § 25.1323(c) with JAR-25.1323(c) at JAR Chg. 14. The FAA expects to achieve harmonization at Chg. 15, effective October 2000, through separate rulemaking that is currently underway.

What are the Differences in the Standards?

JAR paragraphs 25.1323(c)(2), (3), and (4) contain requirements for speeds greater than and less than the speed range for which accuracy requirements apply. Part 25 does not have these additional requirements.

At speeds up to $2/3 (V_{DF} - V_{MO})$ and less than the stall warning speed, JAR paragraphs 25.1323(c)(2) and (3) require the indicated speed to change perceptibly and in the same sense as the calibrated airspeed. At speeds up to V_{DF} , the indicated airspeed must not change in an incorrect sense. In other words, the indicated airspeed should not go down when the actual airspeed is going up.

JAR paragraph 25.1323(c)(4) states that between the initiation of rotation and the achievement of a steady climbing condition during takeoff, there must not be an airspeed indication that would cause the pilot undue difficulty. An example of such an indication would be a significant pause or change in the rate of change in airspeed. Such effects could result from changes in the airflow pattern around the airplane due to the diminishing effect of the ground on the airflow pattern as the airplane climbs away.

The JAR standard is more stringent than part 25. An airspeed indicating system that complies with JAR 25.1323(c) ensures compliance with § 25.1323(c), but a system that complies with § 25.1323(c) may not comply with JAR 25.1323(c). Therefore, a

system designed to comply with § 25.1323(c) may need to be modified to comply with JAR 25.1323(c).

What, If Any, Are the Differences in the Means of Compliance and How Have the Standards Been Applied?

In general, where the standards are the same, the FAA and JAA accept the same means of compliance. For the additional requirements contained in JAR-25, the JAA has published advisory material providing an acceptable means of compliance. For showing compliance with JAR 25.1323(c)(2), the rate of change of IAS with CAS should be not less than 0.75 from $1.3 V_S$ to the stall warning speed. For showing compliance with JAR 25.1323(c)(3), the rate of change of IAS with CAS should be not less than 0.5 from $V_{MO} + \frac{2}{3}(V_{DF} - V_{MO})$. The JAA does not have specific advisory material associated with JAR 25.1323(c)(4).

What Is the Proposed Action and How Does it Address the Underlying Safety Issue?

The FAA proposes to revise § 25.1323 to add the additional airspeed system indication requirements of JAR 25.1323(c)(2), (3), and (4)..

In addition, a new requirement is proposed concerning airspeed lag. With the advent of electronic instruments in the cockpit, the pneumatic signals from the pitot and static sources are processed and digitized in the Air Data Computer (ADC) and then filtered and transported to the cockpit display. Data processing and filtering cause a time lag in displaying the airspeed on the cockpit display. This can be an important consideration in the airspeed indicating system calibration during ground acceleration. As stated in § 25.1323(b), the calibration for an accelerated takeoff ground run must determine the "system error," which is the relation between indicated and calibrated airspeeds. The system error is the sum of the pneumatic lag in the pressure lines, airspeed lag due to time lags in processing the data, and static source, position error.

The FAA considers adding these requirements to part 25 necessary to harmonize the actual wording of part 25 with the JAR on the issue of stall warning speeds, and to

clarify the intent of the part 25 regulation. This addition would align the U.S. regulations with their European counterparts, and the wording of both airworthiness standards would be parallel in this respect. Furthermore, the addition of the airspeed lag requirement would codify what is current FAA policy. The JAA intends to add the airspeed lag requirement to JAR-25.

Adoption of this proposal is intended to benefit the public interest by standardizing the requirements, concepts, and procedures contained in the U.S. and European airworthiness standards without reducing, but potentially enhancing, the current level of safety.

How Does This Proposed Standard Address the Underlying Safety Issue?

The proposed standard continues to address the underlying safety issue in the same manner as the current standard. The additional JAR standards have been added for the purpose of harmonization.

What is the Effect of the Proposed Standard Relative to the Current Regulations?

The proposed standard increases the level of safety relative to 14 CFR part 25 by incorporating the additional JAR requirements. The additional requirement regarding airspeed lag codifies current FAA policy.

What is the Effect of the Proposed Standard Relative to Current Industry Practice?

Since industry practice is to comply with both the FAR and the JAR, the proposed amendment would neither add any new or different objective to the current regulations, nor change the way that any current certification practice is applied. Instead, the intent of the new paragraphs is to clarify and codify the way that the FAA and JAA have traditionally applied the related rules.

What Other Options Have Been Considered and Why Were They Not Selected?

Various options regarding the split between rule and advisory material were discussed to achieve the safety objective while ensuring flexibility in the means of compliance.

The FAA considered incorporating the JAR acceptable means of compliance material for the proposed speed requirements in the rule; however, it was decided that this would be too prescriptive and that it would preclude the use of other means of compliance that could also be found acceptable.

Another consideration was to include quantitative limits on the allowable level of airspeed bias and takeoff/accelerate-stop distance errors in the proposed airspeed lag requirement. ARAC concluded, and the FAA agrees, that the “one size fits all” approach does not work well here. A speed bias that varies may be significant for one airplane and not for another. A similar argument applies to the takeoff and accelerate-stop distance errors. Also, other mitigating factors may be more difficult to consider if prescriptive, quantitative values are included in the standard.

Finally, the ARAC working group considered retaining the airspeed lag policy as policy only and not including it as a regulatory standard. The working group determined that this means of compliance did not have a specific regulatory standard against which it was applied. The FAA agrees with the working group’s determination that a regulatory standard is necessary to assure that future certifications continue to consider airspeed lag issues.

Adopting this proposal would eliminate an identified Significant Regulatory Difference (SRD) between the wording of part 25 and JAR-25, without affecting currently accepted industry design practices. The FAA expects more consistent interpretations of the rules and improved relations between regulatory authorities by eliminating this SRD.

Is Existing FAA Advisory Material Adequate?

To address the additional JAR requirements proposed for § 25.1323, the FAA plans to issue a revision to Advisory Circular (AC) 25-7A, “Flight Test Guide for Certification of Transport Category Airplanes.” The proposed revision would add the means of compliance currently accepted by the JAA as an acceptable means of showing

compliance with the proposed revision to § 25.1323 discussed in this NPRM. AC 25-7A already contains adequate advisory material concerning the airspeed lag issue. Public comments concerning the proposed revision are invited by separate notice in this issue of the Federal Register.

What Regulatory Analyses and Assessments Has the FAA Conducted?

Regulatory Evaluation Summary

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act also requires the consideration of international standards and, where appropriate, that they be the basis of U.S. standards. And fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector of \$100 million or more annually (adjusted for inflation).

In conducting these analyses, the FAA has determined that this proposal has benefits, but no costs, and that it is not “a significant regulatory action” as defined in the Executive Order 12866 nor “significant” as defined in DOT’s Regulatory Policies and Procedures. Further, this proposed rule would not have a significant economic impact on a substantial number of small entities, would reduce barriers to international trade, and would not impose an Unfunded Mandate on state, local, or tribal governments, or on the private sector.

Because there are no apparent costs associated with this proposed rule, it does not warrant the preparation of a full economic evaluation for placement in the docket. The basis of this statement and for the above determinations is summarized in the following paragraphs. The FAA requests comments with supporting documentation in regard to the conclusions contained in this section.

Currently, airplane manufacturers must satisfy both part 25 and the European JAR-25 standards to certificate transport category airplanes in both the United States and Europe. Meeting two sets of certification requirements raises the cost of developing a new transport category airplane, often with no increase in safety. In the interest of fostering international trade, lowering the cost of airplane development, and making the certification process more efficient, the FAA, JAA, and airplane manufacturers have been working to create, to the maximum possible extent, a single set of certification requirements accepted in both the United States and Europe. As explained in detail previously, these efforts are referred to as “harmonization.”

This proposal rule would revise the airspeed indicating requirements of § 25.1323 to add airspeed indication requirements for speeds greater than and less than the speed range for which airspeed indication accuracy requirements currently apply, would require that airspeed indications not cause the pilot undue difficulty between the initiation of rotation and the achievement of a steady climbing condition during takeoff, and would also codify current FAA policy concerning airspeed lag. The FAA has concluded that, for the **reasons** previously discussed in the preamble, the adoption of these JAR **requirements** into 14 CFR part 25 is the most efficient way to harmonize these sections and, in so doing, the existing level of safety will be preserved.

The FAA estimates that there are no costs associated with this proposal. A review of current manufacturers of transport category airplanes certificated under part 25 has revealed that all such future airplanes are expected to be certificated under both 14 CFR part 25 and JAR-25. Since future certificated transport category airplanes are expected to

meet the existing JAR requirement and this proposed rule simply adopts the same JAR requirement, manufacturers would incur no additional cost resulting from this proposal.

In fact, manufacturers are expected to receive cost-savings by a reduction in the FAA/JAA certification requirements for new airplanes. The FAA, however, has not attempted to quantify the cost savings that may accrue due to this specific proposal, beyond noting that, while they may be minimal, they contribute to a large potential harmonization savings.

The agency concludes that, since there is consensus among potentially affected airplane manufacturers that savings would result, further analysis is not required.

Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980, 50 U.S.C. 601-612, as amended, establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant impact on a substantial number of small entities. If the determination is that the rule will, the Agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA considers that this proposed rule would not have a significant impact on a substantial number of small entities for two reasons:

First, the net effect of the proposed rule is minimum regulatory cost relief. The proposed rule would require that new transport category airplane manufacturers meet just the “more stringent” European certification requirement, rather than both the United States and European standards. Airplane manufacturers already meet or expect to meet this standard as well as the existing 14 CFR part 25 requirement.

Second, all U.S. transport-airplane category manufacturers exceed the Small Business Administration small-entity criteria of 1,500 employees for airplane manufacturers. The current U.S. part 25 airplane manufacturers include: Boeing, Cessna Aircraft, Gulfstream Aerospace, Learjet (owned by Bombardier), Lockheed Martin, McDonnell Douglas (a wholly-owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation.

Given that this proposed rule is minimally cost-relieving and that there are no small entity manufacturers of part 25 airplanes, the FAA certifies that this proposed rule would not have a significant impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. In addition, consistent with the Administration’s belief in the general superiority and desirability of free trade, it is the policy of the Administration to remove or diminish, to the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign countries, and barriers affecting the import of foreign goods and services into the United States.

In accordance with the above statute and policy, the FAA has assessed the potential effect of the proposed rule and has determined that it supports the Administration's free trade policy because this rule would use European international standards as the basis for U.S. standards.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), codified in 2 U.S.C. 1532-1538, enacted as Public Law 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any one year. This proposed rule does not contain a Federal intergovernmental or private sector mandate that exceeds \$100 million in any year; therefore, the requirements of the Act do not apply.

What Other Assessments Has the FAA Conducted?

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule and the principles and criteria of Executive Order 13132, Federalism. The FAA has determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, the FAA has determined that this notice of proposed rulemaking would not have federalism implications.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. We have determined that there are no new information collection requirements associated with this proposed rule.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA determined that there are no ICAO Standards and Recommended Practices that correspond to this proposed regulation.

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this proposed rulemaking action qualifies for a categorical exclusion.

Energy Impact

The energy impact of the proposed rule has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94-163, as amended (43 U.S.C. 6362), and FAA Order 1053.1. It has been determined that it is not a major regulatory action under the provisions of the EPCA.

Regulations Affecting Intrastate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in Title 14 of the CFR in a manner affecting intrastate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this proposed rule would apply to the certification of future designs of transport category airplanes and their subsequent operation, it could, if adopted, affect intrastate aviation in Alaska. The FAA therefore specifically requests comments on whether there is justification for applying the proposed rule differently to intrastate operations in Alaska.

Plain Language

In response to the June 1, 1998, Presidential memorandum regarding the use of plain language, the FAA re-examined the writing style currently used in the development of regulations. The memorandum requires Federal agencies to communicate clearly with the public. We are interested in your comments on whether the style of this document is clear, and in any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at <http://www.plainlanguage.gov>.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend part 25 of Title 14, Code of Federal Regulations, as follows:

PART 25 - AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY

AIRPLANES

1. The authority citation for part 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, and 44704.

2. Amend § 25.1323 by redesignating paragraphs (d) through (f) as paragraphs (h) through (j), and adding new paragraphs (d) through (g) to read as follows:

§ 25.1323 Airspeed indicating system.

* * * * *

(d) From $1.3 V_S$ to the speed at which stall warning begins, the IAS must change perceptibly with CAS and in the same sense, and at speeds below stall warning speed the IAS must not change in an incorrect sense.

(e) From V_{MO} to $V_{MO} + 2/3 (V_{DF} - V_{MO})$, the IAS must change perceptibly with CAS and in the same sense, and at higher speeds up to V_{DF} the IAS must not change in an incorrect sense.

(f) There must be no indication of airspeed that would cause undue difficulty to the pilot during the takeoff between the initiation of rotation and the achievement of a steady climbing condition.


(g) The effects of airspeed indicating system lag may not introduce significant takeoff indicated airspeed bias, or significant errors in takeoff or accelerate-stop distances.

(h) Each system must be arranged, so far as practicable, to prevent malfunction or serious error due to the entry of moisture, dirt, or other substances.

(i) Each system must have a heated pitot tube or an equivalent means of preventing malfunction due to icing.

(j) Where duplicate airspeed indicators are required, their respective pitot tubes must be far enough apart to avoid damage to both tubes in a collision with a bird.

Issued in Renton, Washington, on May 2, 2001.



Lirio L. Nelson
Acting Manager
Transport Airplane Directorate
Aircraft Certification Service

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Proposed Revisions to Advisory Circular--Flight Test Guide for Certification of Transport Category Airplanes.

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed advisory circular revision and request for comments.

SUMMARY: The Federal Aviation Administration requests comments regarding a proposed revision to Advisory Circular (AC) 25-7A, "Flight Test Guide for Certification of Transport Category Airplanes." The proposed revision provides revised guidance concerning proposed rulemaking published elsewhere in this issue of the Federal Register concerning the airspeed indicating system. This notice provides interested persons an opportunity to comment on the proposed revision to the AC concurrently with the proposed rulemaking.

DATES: Comments must be received on or before [insert date 60 days after date of publication]

ADDRESSES: Send all comments on the proposed AC revision to the Federal Aviation Administration, Attention: Don Stimson, Airplane & Flight Crew Interface Branch, ANM-111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Ave SW., Renton, WA 98055-4056. Comments may be examined at the above address between 7:30 a.m. and 4:00 p.m. weekdays, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Patricia Siegrist, Program Management Branch, ANM-114, at the above address, telephone (425) 227-2126, or facsimile (425) 227-1320.

5/15/07

SUPPLEMENTARY INFORMATION:

Comments Invited

You are invited to comment on the proposed revision to the AC by submitting written data, views, or arguments. You must identify the title of the AC and submit comments in duplicate to the address specified above. The Transport Airplane Directorate will consider all comments received on or before the closing date for comments before issuing a revision to the AC.

Discussion

By a notice of proposed rulemaking published in this same issue of the Federal Register, the Federal Aviation Administration (FAA) proposes to amend the airworthiness standards for transport category airplanes concerning the airspeed indicating system. The proposed amendment would update the current standards by adding airspeed indication requirements for speeds greater than and less than the speed range for which airspeed indication accuracy requirements currently apply, would add a requirement that airspeed indications not cause the pilot undue difficulty between the initiation of rotation and the achievement of a steady climbing condition during takeoff, and would also add a requirement to limit the effects of airspeed lag. The proposed amendment would harmonize these standards with those being proposed for the European Joint Aviation Requirements (JAR-25).

To address the additional rulemaking requirements proposed for part 25, the FAA also proposes to revise Advisory Circular (AC) 25-7A to describe acceptable means of showing compliance with the proposed rule. This revision only addresses guidance material associated with the airspeed indicating system, and should not be confused with other proposed revisions of AC 25-7A for which the FAA is currently seeking comment. Issuance of a revised AC is contingent on adoption of the proposed revisions to part 25.

Proposed Revisions to AC 25-7A

1. *Replace existing paragraph 177a(1)(v) with new paragraphs a(1)(v) and (vi) to read as follows:*

(v) An acceptable means of compliance when demonstrating a perceptible speed change between $1.3 V_S$ to stall warning speed is for the rate of change of IAS with CAS to be not less than 0.75.

(vi) An acceptable means of compliance when demonstrating a perceptible speed change between V_{MO} to $V_{MO} + 2/3 (V_{DF} - V_{MO})$ is for the rate of change of IAS with CAS to be not less than 0.50.

2. *Redesignate existing paragraph 177a(1)(v), Airspeed Lag, as paragraph 177a(1)(vii).*

Issued in Renton, Washington, on May 2, 2001.



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